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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/566,966	10/13/2006	Christof Erban	284590US6PCT	9227

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EXAMINER	
HERRING, BRENT W	

ART UNIT	PAPER NUMBER
3633	

NOTIFICATION DATE	DELIVERY MODE
03/10/2011	ELECTRONIC

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

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Office Action Summary	Application No.	Applicant(s)	
	10/566,966	ERBAN, CHRISTOF	
	Examiner	Art Unit	
	BRENT W. HERRING	3633	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE *3* MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *25 February 2011*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *20,22-36 and 39-41* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☒ Claim(s) *40* is/are allowed.

6)☒ Claim(s) *20,22,23,26-33,35,36 and 39* is/are rejected.

7)☒ Claim(s) *24,25,34 and 41* is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on *02 February 2006* is/are: a)☒ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☒ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☐ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

Continued Examination Under 37 CFR 1.114

1. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on 2/25/2011 has been entered.

Claim Rejections - 35 USC § 103

2. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

3. Claims 20, 22-23, 26-27-33, 35-36, 38 are rejected under 35 U.S.C. 103(a) as being unpatentable over Sufke, US 4,793,112 in view of Prase, US 2,649,135.

Regarding claim 20:

> '112 discloses a laminated, plate-shaped element comprising: at least a first and a second substrate (1, 2, see Fig. 1), which are joined together, at least indirectly, by a layer of curable casting resin adhesive bonding (3) to form a bonded joint;
>
> at least one support element (8) positioned in the first substrate (1) capable of fastening the laminated element to an infrastructure; and

‘112 does not disclose the remainder of the claim with regards to the active position fastening.

‘135 discloses an active position fastening (21, 14) of a second substrate relative to a first substrate, at least in the event of failure of a bonded joint (col. 2, lns. 7-12), wherein the active position fastening is active only between the first and second substrates (12) and is placed a certain distance from edges of the first and second substrates, and

the active position fastening comprises at least one fastening element (14, 21) passing through a plane of a bonded assembly between the first and second substrates and engaging in a recess in each of the first and second substrates.

At the time of the invention, it would have been obvious to a person of ordinary skill in the art (herein abbreviated as ATI-OPOSA) to provide active position fasteners as taught by ‘135 to the laminate of ‘112 in order to achieve a permanent connection between adjacent panels.

In modifying ‘112 in view of ‘135, the active position fastening element of ‘135 combined with the adhesively bonded laminate of ‘112 would pass through the layer of adhesive bonding of ‘112. Note that ‘135 discloses connectors 25 that are activated when the adjacent panels are joined just as the adhesive of '112 connects the adjacent panels when they are joined.

Regarding claim 22:

'112 discloses wherein the first and second substrates are joined together by surface bonding by the layer of adhesive.

Regarding claim 23:

'112 discloses further comprising a recess (5) in at least one of the substrates that is a through-drillhole (see Fig. 1).

Regarding claim 26:

'135 discloses wherein the fastening element is a cylindrical pin.

Regarding claim 27:

'135 discloses wherein the fastening element does not project from outer surfaces of the first and second substrates.

Regarding claims 28:

'135 discloses visual masking in a region of the active position fastening. Note that the panel surface 15 masks the active position fastening element.

Furthermore, in combining '112 and '135 ATI-OPOSA to use visual masking on the transparent element of '112 in order to conceal the element for aesthetics.

Note that the courts have found that matters relating to ornamentation only, which have no mechanical function, cannot be relied upon to patentably distinguish the claimed invention from the prior art.

Regarding claims 29, 30 and 32:

'135 discloses wherein a fastening element for the active position fastening is fastened and immobilized by adhesive bonding by an assembly of

the first and second substrates with the adhesive, in a recess into which the fastening element is introduced. Should applicant dispute fastening by adhesive bonding, note that it would have been obvious to persons of ordinary skill in the art to further apply the adhesive into the recesses without revealing any extraordinary or unexpected results, since adhesive bonding for increased bonding strength is well known in the art.

Regarding claim 31:

'135 discloses wherein the fastening element comprises at least one element capable of deforming elastically or plastically upon introduction of the fastening element into the recess.

Regarding claim 33:

'135 discloses further comprising at least one functional element placed between the first and second substrates (insulation component in the void 22).

Regarding claim 35:

'112 discloses claim 20, wherein an edge of the laminated element is joined to support elements (13).

Regarding claim 36:

'112 discloses a laminated, plate-shaped element comprising: at least a first and a second substrate (1, 2), joined together by a layer of curable casting resin adhesive bonding (3) to form a bonded joint, indirectly via a spacing means;

at least one support element (8) associated with the first substrate to fasten the laminated element to an infrastructure;

'112 does not disclose the active position fastening.

'135 discloses an active position fastening (21, 14) of the second substrate relative to the first substrate, at least in the event of failure of the bonded joint, wherein

the active position fastening is active, independently of the support element, only between the spacing means and the first or the second substrate, and

the active position fastening comprises at least one fastening element passing through the spacing means and engaging in a respective recess in each of the first and second substrates.

ATI-OPOSA to provide active position fasteners as taught by '135 to the laminate of '112 in order to achieve a permanent connection between adjacent panels.

Regarding claim 38:

'135 discloses wherein the active position fastening comprises at least one fastening element passing through the spacing means and engaging in a recess in each substrate.

4. Claim 39 is rejected under 35 U.S.C. 103(a) as being unpatentable over Sufke, US 4,793,112 in view of Prase, US 2,649,135 as applied to claim 1 above, and further in view of Florentin et al., US 6,052,965.

Regarding claim 39:

'965 discloses an opaque colored layer (7, see Fig. 1) in a region of an edge on a surface of the first substrate.

ATI-OPOSA to use an opaque colored layer in a region of an edge of a surface of the first substrate for purposes of aesthetic enhancement.

Note that the courts have found that matters relating to ornamentation only, which have no mechanical function, cannot be relied upon to patentably distinguish the claimed invention from the prior art.

Allowable Subject Matter

5. Claims 24, 25, 34 and 41 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

6. Claim 40 is allowed.

7. The following is a statement of reasons for the indication of allowable subject matter:

8. Regarding claims 34 and 40 the primary reason of allowance is the support element fastened in a blind hole in the substrate emerging on the side opposite the adhesive.

9. Regarding claim 24, the primary reason for allowability is the through-drillhole in at least one of the substrates emerging only in a face of at least one of the substrates which is turned toward the adhesive, the recess produced in the form of a blind hole or groove.

10. Regarding claim 25, the primary reason for allowability is the fastening element being a round tenon with a head part and a shank part.

11. Regarding claim 41, the primary reason for allowability is the functional element is a coating comprised of a plurality of PV solar cells.

12. Note that the primary reasons for allowances are not limiting and that the claims are only allowable in combination with the limitations of any parent claims from which they depend.

Response to Arguments

13. Applicant's arguments filed 2/25/2011 have been fully considered but they are not persuasive.

14. Regarding applicant's argument that the dowel and key strip of Prase are not responsible for active position fastening of the upper frame to the lower frame because the dowel and key strip allow the position of the upper frame to move, applicant's claims recite, "active position fastening of the second substrate relative to the first substrate." Claims are examined with their broadest reasonable interpretation. In the instant case, the recited language does not limit the structure to include limiting ALL movement of the components under any circumstances. The dowel and key strip prevent longitudinal movement of the components. Furthermore, once in place, the dowel and key strip also prevent lateral movement through frictional forces between the first and second substrates and the dowel and key strip. As such, the dowel and key strip provide for "active position fastening of the second substrate relative to the first substrate." It would

be obvious to incorporate active position fastening as taught by Prase to the substrates of Sufke to provide redundancy of the connection and to further ensure a permanent connection between the laminates of Sufke.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to BRENT W. HERRING whose telephone number is (571)270-3661. The examiner can normally be reached on Monday-Thursday, 10:00AM-7:30PM EST.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Brian Glessner can be reached on (571)272-6754. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/B. W. H./

Examiner, Art Unit 3633

/Robert J Canfield/
Primary Examiner, Art Unit 3635